(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
11 December 2003 (11.12.2003)

PCT

(10) International Publication Number
WO 03/102239 A2

(51) International Patent Classification[7]: C12Q 1/68

(21) International Application Number: PCT/IN03/00204

(22) International Filing Date: 30 May 2003 (30.05.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
487/MUM/2002 31 May 2002 (31.05.2002) IN

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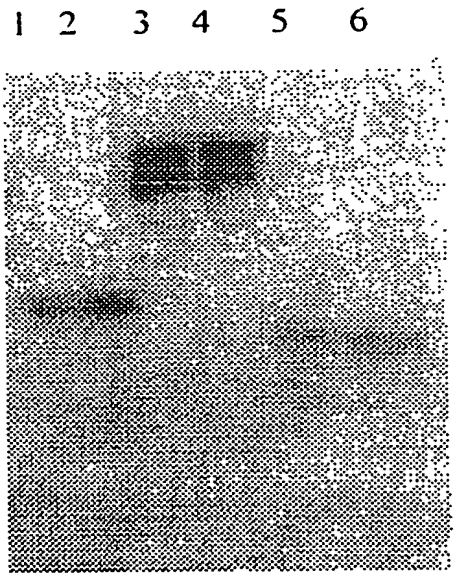
(81) Designated States *(national)*: CN, JP, US.

(84) Designated States *(regional)*: European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

Published:
— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: AN IMPROVED METHOD OF DETECTION OF TARGET NUCLEIC ACID SEQUENCE BY NUCLEIC ACID AMPLIFICATION



(57) Abstract: Disclosure of a method for the detection and quantitation of polynucleotide sequences in a sample of biological or non-biological material through target poly nucleotide sequence amplification by polymerase chain reaction using chemically labeled oligonucleotide amplification primers and formation of an entity between the amplified polynucleotide sequence and chemically labeled polynucleotide having a sequence complementary to the target polynucleotide sequence for determining the identity and/or presence and/or quantitation of the target poly nucleotide sequences. The chemical label covalently attached to the oligonucleotide amplification primer and polynucleotide or oligonucleotide comprise molecular energy transfer labels (donor and acceptor). It is again a very sensitive, rapid and reliable method with better sensitivity, specificity and reliability for the detection of polynucleotide sequence. It also greatly reduces the possibility of amplification product carry-over contamination and adaptable for many formats of nucleic acids amplifications and real time measurements.

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